Michigan Oral Health Fact Sheet

A silent epidemic of dental and oral disease is affecting our most disadvantaged citizens – children from families with low income, children from racial and ethnic minority groups and the elderly. Dental caries remains the single most chronic disease of childhood, occurring 5-8 times as frequently as asthma. Children in Michigan suffer from a preventable disease – dental decay.

The facts:

- Children age 0-3 have limited access to dental providers.
- Many dental professionals do not see children under 3, yet Early Childhood Caries (baby-bottle mouth) can devastate a child's mouth by age 2.
- Preventive dental care in the past 12 months for low-income children and adolescents (age 0-18) fell 24% below the HP 2010 target.
- Frequent consumption of juices, soda pops and sports drinks puts many Michigan children and adolescents at risk for caries.
- An average of 29.3% of Michigan parents send their child to bed with a bottle of juice, milk or soda; rates are higher for parents under 30 and Hispanics
- Just 23% of Medicaid children visited the dentist and only 21% had their teeth cleaned in 2002.
- Nationally, 37% of poor children aged 2 to 9 have one or more untreated decayed primary teeth, compared to 17% of nonpoor children.
- Poor adolescents aged 12 to 17 in each racial/ethnic group have a higher percentage of untreated decayed permanent teeth than the corresponding non-poor adolescent group.
- Community based health centers and local health departments with an oral health component is 46% below the HP 2010 target
- Michigan spent less than 1% on Medicaid dental health expenditures in 2002.
- 3 of every 10 hospital emergency room visits are dental related.
- 37% of Michigan's citizens live in non-water fluoridated communities and do not receive the decay-reducing benefits from community water fluoridation.

Oral health is important to total body health:

- Social Impact:
    - Oral health is related to well-being and quality of life as measured along functional, psychosocial and economic dimensions.
    - U.S. school children missed a total of 1.6 million days of school due to acute dental conditions, or more than 3 days for every 100 students in 2000.
    - Diet, nutrition, sleep, psychological status, social interaction, school and work are affected by impaired oral health.
    - The inability to bite, chew and swallow foods limits food selection and leads to poor nutrition.
    - Oral-facial pain, as a symptom of untreated dental and oral problems is associated with sleep deprivation, depression and multiple adverse psychosocial outcomes.

- Oral Health and its Relationship to Other Diseases
    - The oral cavity is a portal of entry as well as the site of disease for bacterial and viral infections that affect general health status.
    - Research suggests that inflammation association with gum disease (gingivitis and periodontitis) may increase the risk for heart disease and stroke, premature births in some females, difficulty in controlling blood sugar in people with diabetes, and respiratory infection in susceptible individuals.
    - The bacteria from a mothers mouth is spread to the child, placing the child at greater risk if the mother has a mouth infection.

How to improve oral health:

- Community Water Fluoridation
    - Community water fluoridation is one of the 10 greatest public health achievements in the past century and has been the basis for primary prevention of caries for the past 60 years.
    - While 87% of Michigan residents served by community water systems receive adequately fluoridated water, citizens in the Northern Lower Peninsula and the Western Upper Peninsula are much less likely to have access to fluoridated water.
- School-based/School-linked Sealant Programs
    - A dental sealant is a protective coating for a tooth that is effective in preventing decay in areas of the tooth most prone to dental decay – the chewing surfaces of molar teeth.
    - In Michigan, 33% of children ages 8-9 had dental sealants on their 1st molars; African Americans and Hispanics were less likely to have sealants placed than whites. However, all racial and ethic groups fail to meet the 50% objective set forth by HP 2010.
    - A school-based/school linked sealant program combined with community water fluoridation can reduce dental decay by 83-92%.
    - The cost of a sealant ($16-24) is much less expensive than a dental filling ($78-$135).
- Provide education and dental intervention programs to WIC and Head Start.
- Establish a fluoride varnish program for children under 5. Fluoride varnish is paint on fluoride that protects teeth for up to 6 -9 months. Cost per application is less than 65 cents per child.
- Increase the Healthy Kids Dental Program to all counties.

Need more information? Visit the MDCH/Oral Health web page: http://michigan.gov/oralhealth

Here you will find:

Information on the Oral Health Coalition
The State Oral Health Plan
The State Oral Health Disease Burden Document
A Dental Brochure
Links to Oral Health Topics
The Oral Health Program Directory
Oral Health Fact Sheets (Fluoride Varnish, Sealants and Oral Health Program Overview)

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Community Water Fluoridation Fact Sheet

What is Community Water Fluoridation?

- Community water fluoridation is the adjustment of the *natural level* of the fluoride in the drinking water system to the level recommended for optimum dental health.
- It is a safe, inexpensive, and effective way to prevent tooth decay in children and adults.

What is Fluoride?

- Fluoride is a naturally occurring compound derived from the element fluorine.
- Small amounts of fluoride are present in all water sources.

How does Community Water Fluoridation benefit my Family?

- Fluoride benefits both children and adults by strengthening and repairing tooth enamel
- Community water fluoridation accounts for a reduction in the frequency and severity of tooth decay
- Community water fluoridation decreases the need for fillings and extractions
- Reduces pain and suffering associated with tooth decay
- Community water fluoridation creates an elevation in self-esteem with improved oral function and appearance.

Is Community Water Fluoridation Safe?

- Community water fluoridation has proven to be safe through both practical experience and research.
- During the past 40 years, over 4000 studies have measured and confirmed the safety of fluoride. Community water fluoridation has been studied more thoroughly than any other public health measure.
- Community fluoridated water regulations maintain fluoride between .7 and 1.2 parts per million; well below the EPA guidelines and far below the levels required for the adverse effects of permanent tooth staining.

What does it cost the Community to Fluoridate the Water?

- The median cost of community-based fluoridation is about 72 cents per person per year. The cost varies by the size of the community population, the larger the community the less expensive.
- The cost of community water fluoridation per person is less than having one cavity treated over a person's lifetime.
- A CDC study estimated that every $1 invested in community water fluoridation saved $38 in avoided costs for dental treatment.

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Dental Sealant Fact Sheet

The Problem

Although dental caries (tooth decay) is largely preventable, it remains the most common chronic disease of children aged 5-17 years – five times more common than asthma. Once established, the disease requires treatment. A cavity only grows larger and more expensive to repair the longer it remains untreated. Less than one in five Medicaid-covered children received one preventive dental service in a recent year. Poor children have nearly twelve times more restricted-activity days because of dental-related illness than children from higher-income families. Pain and suffering due to untreated tooth decay can lead to problems in eating, speaking, and attending to leaning.[1]

The Solution: Prevention

School-based, school-linked dental sealant programs are cost saving when delivered to populations at high-risk for tooth decay, such as children in low-income households. The average cost of applying one dental sealant equals 5 – 7 times less than the cost of filling one cavity.[2]

What are Dental Sealants?

- A dental sealant is a thin plastic coating that is applied to chewing surfaces of the permanent molars to prevent tooth decay.

Who Should Receive Sealants?

- Children, with newly-erupted first or second molar teeth, can benefit most from sealants. First molar teeth generally appear at about six years of age. Second molar teeth usually appear at the age of 12.

How effective are Sealants?

- Sealant material forms a protective barrier by bonding to tooth surfaces covering natural depressions and grooves. Scientific studies have proven that properly applied sealants are 100% effective in protecting the tooth surfaces from cavities.

How can Children Receive Sealants?

- School-based, school-linked dental sealant programs provide sealants to children unlikely to receive them otherwise.
- A dentist or a registered dental hygienist in the dental office can apply sealants.

How do I start a Sealant Program in my Community/School?

- A Detailed manual providing information for starting a sealant program can be found at http://www.mchoralhealth.org/Seal
- Assess the population to be served.
    - Grade level – Second and Sixth graders
    - Fifty percent or higher of school population participating in free/reduced meal programs.
    - Access to care – the ability of children to receive care at a private dental office.
- Gain support of school administration and parents.
- Determine resources.
- Build support for the program by establishing partnerships with oral health providers, schools, businesses, health professionals and health clinics in your community.
- Contact the Michigan Department of Community Health, Oral Health Program for technical assistance, and information about existing clinics in your area.

1 http://www.cdc.gov/nccdphp/publications/factsheets/Prevention/pdf/oh.pdf
2 American Dental Association. 2000. 1999 Survey of Dental Fees. Chicago, IL: American Dental Association Survey Center.

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Fluoride Varnish Fact Sheet

The Problem

Tooth decay in children is a widespread preventable disease. Children as young as 12-18 months can get cavities. Cavities in baby teeth can cause pain and even prevent children from being able to eat, speak, sleep and learn properly.

What is Fluoride Varnish?

- Fluoride varnish is a protective coating that is painted on teeth to help prevent new cavities and to help stop cavities that have already started.
- The paint on fluoride varnish is sticky, so it attaches to the teeth easily and makes the outer layer (enamel) of the teeth harder helping to prevent cavities.
- Fluoride varnish is a topical fluoride treatment, which strengthens the teeth and reduces the prevalence of decay.

Is Fluoride Varnish Safe?

- Fluoride varnish is endorsed by the American Dental Association
- Fluoride varnish is approved by the FDA

What are the Benefits of Fluoride Varnish?

- Fluoride varnish releases fluoride over several months, which strengthens the teeth and helps to prevent decay.
- No instruments are put in the mouth.
- Fluoride varnish does not have a bad taste.
- Fluoride varnish dries quickly once it encounters saliva.
- Fluoride varnish is quick and easy to apply.
- The application of fluoride varnish is painless.

How often should fluoride varnish be applied?

- To maintain effectiveness, fluoride varnish should be applied every 3-4 months.

After Application of Fluoride Varnish:

- The child should avoid crunchy and sticky foods for the remainder of the day (eat soft foods).
- Do not brush teeth until the following day.
- It is normal for the teeth to feel sticky after application
- The fluoride varnish is yellow, therefore, will appear yellow on the teeth. This yellow color will go away when the teeth are brushed the next day.